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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,476	01/23/2004	Henry Martin Kyle	15786-002001	7003

26181 7590 06/27/2008
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ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
06/27/2008	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/763,476
Filing Date: January 23, 2004
Appellant(s): KYLE ET AL.

Brenda M. Leeds Binder
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/4/2008 appealing from the Office action mailed 9/4/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

"Nicholson", Gary Nicholson, http://www.gazza.co.nz/interactivemaps/index.html, August 2001, pages 1-20

"ChooseClimate", http://www.chooseclimate.org/flying/mapcalc.html, August 2000, pages 1-4

"MapProjections", Map Projections: http://erg.usgs.gov/isb/pubs/MapProjections/projections.html, April 2003, pages 1-26

"Microsoft Draw", Microsoft Draw User's Guide, Version 1.0, Microsoft Corporation pg. 21, 1991

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1, 3-4, 6-8, 20, 22-23, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gary Nicholson ("Gazza's Interactive Maps", (http://www.gazza.co.nz/interactivemaps/index.html; hereinafter referred to as Nicholson), in view of ChooseClimate.org (http://www.chooseclimate.org/flying/mapcalc.html; hereinafter referred to as ChooseClimate), and further in view of Microsoft Draw ("Microsoft Draw User's Guide").

2. Regarding claims 1 and 20, Nicholson teaches a computer program product (gazza's interactive maps web site is inherently a program code written in some web scripting language) stored on a computer-readable medium (web program is inherently stored on a server or web-server) operating a computer-implemented method for displaying a path between at least two geographic locations (graphical method of selecting points and then viewing path of the great circle between the two points, pg. 1), comprising display a two-dimensional representation of three-dimensional geographic data (maps of the world, pg. 6); receiving a user-input specifying an initial location on

the two-dimensional representation (Honolulu is selected as the start point by the user, pg. 3; Honolulu, pg. 9); receiving additional user input specifying a plurality of intermediate locations (the user selects San Francisco, Charleston, Dublin, Port of Spain as intermediate locations as shown on pgs. 10-13) and terminating with a final location (Honolulu is selected again as the final location, pg. 13); and while receiving the additional user input, displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location (pg. 1, pg. 13; the arcs linking different cities are the great circle paths representing the shortest distance between those cities). Nicholson further teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (the user selects a position on the map by clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pg. 3-4 and 9-12); and receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location (once the user has selected the first position, the user drags the mouse to another position that he may want to select and clicks the mouse to select that position, pg. 3-4 and 9-12).

Although Nicholson teaches the claimed limitations as stated above, Nicholson does not explicitly teach to dynamically display the great circle path. However, ChooseClimate teaches to dynamically display a great circle path and calculate the

great circle distance between two selected locations (pgs. 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically displaying the great circle path and calculating it's distance could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

Although the combination of Nicholson and ChooseClimate teach the claimed limitations as stated above, they do not explicitly teach to dynamically displaying a path that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location. However, Microsoft Draw teaches to select a line tool and position the cursor at the first location, holding and dragging the mouse from the start position until the mouse button is released (pg. 21; the location where the mouse button is released is considered the final position; the length of the line keeps on increasing as the user moves from the start position to the final position). Therefore, it would have been obvious to one of ordinary skill in art at the time of present invention display the path of the line that is being drawn by the user as taught by Microsoft Draw and apply this functionality into the method of Nicholson and ChooseClimate to dynamically display the great circle path because displaying the path as being drawn helps the user to know if he/she is dragging the mouse in the desired direction.

3. Regarding claims 3 and 22, Nicholson teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor

over the initial location on the two-dimensional representation and inputting a first cursor position (the user selects a position on the map by clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pg. 3-4 and 9-12); and receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user positioning the cursor over the final location on the two-dimensional representation and inputting a second cursor position (once the user has selected the first position, the user moves the mouse to another position that he may want to select, and after positioning the mouse over the desired location, the user clicks the mouse to select the second position, pg. 3-4 and 9-12).

4. Regarding claim 4 and 23, Nicholson teaches to display the great circle distance corresponding to the great circle path (pgs. 1 and 9-13; maps on pgs. 9-13 shows a great circle path between different cities and the great circle distance between the two cities), including updating the great circle distance based on the additional user input while receiving the additional user input (pg. 9-13 shows that additional cities are added by the user using a mouse click, and the great circle distances are calculated between those cities).

Although Nicholson teaches the claimed limitations as stated above, Nicholson does not explicitly teach to dynamically update the great circle distance. However, ChooseClimate teaches to dynamically display a great circle path and update the great circle distance between any two selected locations (pgs. 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to

dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically calculating and updating the great circle distance between the selected points could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

5. Regarding claims 6 and 25, Nicholson teaches receiving additional user input specifying at least one additional final location on the two-dimensional representation (as shown in the map on pg. 13, Honolulu is the additional final location, and Port of Spain is the final location); and while receiving the additional user input, displaying a second path extending from a final location toward the additional final location (the great circle path between Port of Spain and Honolulu), the second path terminating at the additional final location upon completion of receipt of the additional user input (the great circle path between Port of Spain and Honolulu ends at Honolulu when no further additional user input is received) and the second path representing a great circle path between the final location and the additional final location. For details regarding the rejection of dynamically displaying the second path representing a great circle path, please refer to the rejection of claims 1 and 20.

6. Regarding claims 7 and 26, Nicholson teaches displaying a great circle distance being the sum of a great circle distance corresponding to the great circle path between the initial location and the final location and the great circle distance corresponding to the second path between the final location and the additional final location (maps on pgs. 9-13 displays the great circle distance corresponding to the great circle path; the

first text box under "Distance" gives the distance between the start point and the next point, the second text box gives the distance between the start point and the current position on way to the next point, and the third box is the total distance traveled from the initial start point to the current point; pg. 17 displays the total great circle distance (20610.756 km) between the initial point Honolulu and the final point Port of Spain; pg. 13 displays the total great circle distance (30828.954 km) between the final point Port of Spain and the additional final point Honolulu, which is the sum (30828.954 km) of the great circle distance (20610.756 km) between initial point (Honolulu) and the final point (Port of Spain) via intermediate points (20610.756), and the great circle distance (10218.198 km) between the final point (Port of Spain) and the additional final point (Honolulu)).

7. Regarding claims 8 and 27, Nicholson teaches displaying a great circle path extending from the initial location (pgs. 18-20, San Francisco) toward each of the plurality of intermediate locations (Honolulu, point 2) and terminating at the final location (Bergen), comprises displaying a first portion of the path, the first portion extending from the initial location to an outer boundary of the two-dimensional representation (the great circle path originating from San Francisco to Honolulu, and from Honolulu to point 2, extends to the outer boundary of the map as shown in maps on pgs 18-20; the arc from San Francisco to the outer boundary of the map via Honolulu and point 2 is represented by solid lines/curves as shown on pg. 2); displaying a second portion of the path, the second portion extending from an outer boundary of the two-dimensional representation to the final location (as shown in maps on pgs. 18-20, the great circle arc that extends

from point 2 to the outer boundary of the map, re-emerges again at another position on the boundary of the map and extends to the final location Bergen is represented as solid lines/curves); displaying a graphical element (dotted lines/curves as shown on the map on pg. 20) linking the first portion of the path to the second portion of the path, wherein the first portion and the second portion together comprise the great circle path between the initial location and the final location (the dotted lines/curves on the map connects first portion of the path and the second portion of the path, and thus connecting the initial location San Francisco with the final location Bergen).

8. Claims 9-14 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Autodesk ("Welcome to Autodesk Onsite [Autodesk Onsite Help: authpub]", 2002, pages 1-238), in view of Nicholson, in view of ChooseClimate, and further in view of Microsoft Draw.

9. Regarding claims 9 and 28, Autodesk (chapter: Marking Up and Measuring Your Maps, pgs 1-25) teaches a computer program product stored on a computer-readable medium (Autodesk Onsite is a computer software program tool for viewing, integrating and presenting maps, chapter: Welcome to Autodesk onsite, pg. 1) operating a computer-implemented method dynamically displaying an area bounded by great circle paths (pg. 22), comprising displaying a two-dimensional representation of three-dimensional geographic data (pg. 22); receiving a user input (click in the map) specifying at least three locations on the two-dimensional representation (the user describes at least two segments, and thus the user indicates at least three points on the

map), each location representing a vertex where the vertices together define an area (figure on pg. 22 shows 5 vertices, each vertex representing a location selected by the user); while receiving the user input, dynamically displaying a boundary path between adjacent locations (as the user moves the cursor after selecting the first point, the first segment and it's distance is displayed by Autodesk Onsite, pg. 18), where each boundary path (segments) represents a great circle path (Great Circle Arc, pg. 18, figure on pg. 22) between the adjacent locations (figure on pg. 22) and where the boundary paths together enclose an area (figure on pg. 22 shows an area enclosed by 5 segments comprising 5 different vertices).

Although Autodesk discloses the limitations as stated above, Autodesk does not explicitly teach receiving a user input specifying a location comprises receiving input corresponding to a user positioning a cursor over the location on the two-dimensional representation and inputting a cursor position (the user selects a position on the map by clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pgs. 3-4 and 9-12); and wherein dynamically displaying a boundary path between adjacent locations while receiving the user input comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a second cursor position (once the user has selected the first position, the user drags the mouse to another position that he may want to select and clicks the mouse to select that position, pgs. 3-4 and 9-12). Nicholson teaches exactly the same (pgs. 3-4 and 9-12).

Although Autodesk and Nicholson teach the claimed limitations as stated above, they do not explicitly teach to dynamically display the great circle path. However, ChooseClimate teaches to dynamically display a great circle path and calculate the great circle distance between two selected locations (pgs. 1-3; it should be noted that ChooseClimate dynamically calculates the position of the cursor as the cursor is being moved, and when the user clicks at the second location, it considers that location as the final location and calculates the great circle distance and dynamically displays the great circle path upon the second click). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into interactive maps of Autodesk and Nicholson because dynamically displaying the great circle path and calculating it's distance could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

Although the combination of Autodesk, Nicholson and ChooseClimate teach the claimed limitations as stated above, they do not explicitly teach to dynamically displaying a path that continually increases in length as the cursor is dragged from the first cursor position to the second cursor position, and where the first and second cursor positions correspond to adjacent locations. However, Microsoft Draw teaches to select a line tool and position the cursor at the first location, holding and dragging the mouse from the start position until the mouse button is released (pg. 21; the location where the mouse button is released is considered the final position; it should be noted that when

the user drags the mouse from the start position, the very next location of the cursor is considered the adjacent second location; the length of the line keeps on increasing as the user moves from the start position to the second position to the final position). Therefore, it would have been obvious to one of ordinary skill in art at the time of present invention display the path of the line that is being drawn by the user as taught by Microsoft Draw and apply this functionality into the method of Autodesk, Nicholson and ChooseClimate to dynamically display the great circle path because displaying the path as being drawn helps the user to know if he/she is dragging the mouse in the desired direction.

10. Regarding claims 10 and 29, Autodesk teaches displaying a value of a three-dimensional area represented by the enclosed area on the two-dimensional representation (figure on pg. 22).

11. Regarding claims 11 and 30, Autodesk (pgs. 17-25) teaches receiving a user input specifying a modification to at least one of the locations (adjust any path by dragging the square grip on either side of the path that describes the area); dynamically displaying one or more modified boundary paths based on the modification to the at least one location (the changes to the boundary path being adjusted is displayed dynamically); and dynamically displaying a modified value of a three-dimensional area represented by a modified enclosed area on the two-dimensional representation (the measurements are updated as you drag the grip and are displayed dynamically).

12. Regarding claims 12 and 31, Autodesk teaches to dynamically display the modified great circle distance corresponding to a modified cumulative distance of the

boundary paths between adjacent locations (pg. 18, pg. 25; Autodesk displays the distance of each and the total distance of all the segments described by the user; the measurements are updated as the user drags the grip representing a location to make adjustments along a path or area).

13. Regarding claims 13 and 32, Autodesk teaches to display the great circle distance corresponding to a cumulative distance of the boundary paths between adjacent locations (pg. 18, pg. 22; Autodesk displays the distance of each and the total distance of all the segments described by the user).

14. Regarding claims 14 and 33, Autodesk teaches displaying a boundary path between at least two of the locations (Marking Up and Measuring Your Maps, pg. 19, Alaska and Russia), comprising displaying a first portion of the path, the first portion extending from the initial location (Alaska) to an outer boundary of the two-dimensional representation (the curved lines extending from Alaska to the end of the map); displaying a second portion of the path, the second portion extending from an outer boundary of the two-dimensional representation to an adjacent, second location (the curved lines extending from the other end of the map to Russia); displaying a graphical element (dotted line with solid, curved arrows appearing at each end of the map) linking the first portion of the boundary path to the second portion of the boundary path, wherein the first portion and the second portion together comprise the great circle path between the initial location and the final location (pg. 18-19; the shorter distance between Alaska and Russia from west to east; line depicting traveling west from Alaska

will reach the end of the two-dimensional map, and it re-emerges at the east point of the map in Russia).

15. Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson, ChooseClimate and Microsoft Draw, and further in view of Autodesk.

16. Regarding claims 5 and 24, the combination of Nicholson, ChooseClimate and Microsoft Draw teaches to dynamically update data based on additional user input while receiving the additional user input (see the rejection of claims 1 and 24 for further details). Although the combination of Nicholson and ChooseClimate teach the limitations as stated above, they do not explicitly teach to display an initial direction corresponding to the great circle path, and updating the initial direction based on the additional user input while receiving the additional user input. However, Autodesk teaches to display the direction between two points while measuring the distance between those two points (see the chapter on Marking Up and Measuring Your Maps, pg. 19 3rd paragraph, pg. 20-21; the direction displayed is based on the start of the great circle between the two points corresponds to displaying an initial direction corresponding to the great circle path; the direction is measured and displayed while calculating the distance between the first point and the second point, and when the third point is selected Autodesk calculates the distance between the second point and the third point and displays the updated direction of the great circle path). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to display the direction corresponding to the great circle path as taught by

Autodesk and apply this functionality into the method of Nicholson, ChooseClimate and Microsoft Draw because displaying the direction for geographical measurements between the two points show the relation between those points (Marking Up and Measuring Your Maps, pg. 19 3rd paragraph).

17. Claims 15, 17-19, 34 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Autodesk, in view of Map Projections (http://erg.usgs.gov/isb/pubs/MapProjections/projections.html, pgs. 1-26, April 2003; hereinafter referred to as MapProjections), and further in view of Microsoft Draw.

18. Regarding claims 15 and 34, Autodesk (chapter: Marking Up and Measuring Your Maps, pgs 1-25) teaches a computer program product stored on a computer-readable medium (Autodesk Onsite is a computer software program tool for viewing, integrating and presenting maps, chapter: Welcome to Autodesk onsite, pg. 1) operating a computer-implemented method for dynamically displaying a path between at least two geographic locations (pg. 18, the bottom figure shows a path between Houston and Caracas, the two geographic locations), comprising displaying a two-dimensional representation (maps on pg. 18) of three-dimensional geographic data; receiving a user input specifying an initial location on the two-dimensional representation (pg. 19 last line; clicking anywhere on the map specifies the initial point); receiving additional user input specifying a plurality of intermediate locations terminating with a final location (pg. 20; the first segment consists of the initial point and the second point, and a second segment consist the second point as it's start point and a third point, which is obtained

by moving the cursor; second point and third point corresponds to intermediate locations; when the last segment of the path is described by clicking on a point, that point is considered as the final location); and dynamically displaying a path extending from the initial location toward each of the plurality of intermediate locations and ultimately terminating at the final location (pg. 16, 18, 20, 24-25; figure on pg. 20 shows the segments of the path as they are described by the user; this segments of the path are described in real-time as the user drags the mouse; figure on pg. 20 shows the segments of the path from initial point to the end point, distances of which are measured in paper measurements, as straight lines). Autodesk (pgs. 18-20) further teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (pg. 19; clicking on the map specifies the initial location; the user has to position the cursor over a point on the map, and the user then clicks on the desired point on the map); and receiving additional user input specifying a plurality of intermediate locations (pg. 20; the first segment consists of the initial point and the second point, and a second segment consist the second point as it's start point and a third point, which is obtained by moving the cursor; second point and third point corresponds to intermediate locations; when the last segment of the path is described by clicking on a point, that point is considered as the final location) comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location (when the mouse is moved, the user has to drag the mouse from one

location to another; the user holds the mouse at the desired location of the initial point and drags the cursor to the final location, pg. 18).

Although Autodesk teaches the claimed limitations as stated above, and teaches to display the path on the map as straight lines, Autodesk does not explicitly teach that the path of constant direction could be displayed as straight lines. However, MapProjections teach that any straight line on the map is line of constant direction (pg. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the line of constant direction as a straight line on the map as taught by MapProjections and apply it into the tool of Autodesk because representing straight lines on the map as the line of constant direction is useful for navigation (pg. 3).

Although the combination of Autodesk and MapProjections teach the claimed limitations as stated above, they do not explicitly teach to dynamically displaying a path of constant direction that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location. However, Microsoft Draw teaches to select a line tool and position the cursor at the first location, holding and dragging the mouse from the start position until the mouse button is released (pg. 21; the location where the mouse button is released is considered the final position; the length of the line keeps on increasing as the user moves from the start position to the final position; a line is also considered as a path of constant direction). Therefore, it would have been obvious to one of ordinary skill in art at the time of present invention display the path of the line that is being drawn by the user as taught by Microsoft Draw and apply this functionality into the method of Autodesk and MapProjections to

dynamically display the great circle path because displaying the path as being drawn helps the user to know if he/she is dragging the mouse in the desired direction.

19. Regarding claim 17 and 36, Autodesk (pgs. 18-20) teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (pg. 19; clicking on the map specifies the initial location; the user has to position the cursor over a point on the map, and the user then clicks on the desired point on the map); and receiving additional user input specifying a plurality of intermediate locations (pg. 20; the first segment consists of the initial point and the second point, and a second segment consist the second point as it's start point and a third point, which is obtained by moving the cursor; second point and third point corresponds to intermediate locations; when the last segment of the path is described by clicking on a point, that point is considered as the final location) comprises a receiving input corresponding to a user positioning the cursor over the final location on the two-dimensional representation and inputting a second cursor position (after selecting the initial point, the user moves the mouse to a second point and then clicks at that point to input it's position, the user then moves the mouse to a third point and then clicks at the third point to input it's position, and repeats the steps for all the other intermediate points and the final point on the path, pg. 20).

20. Regarding claims 18 and 37, Autodesk teaches displaying a distance corresponding to the distance of the path of constant direction (pg. 20, total distance), including dynamically updating (total distance is updated as the user makes changes to

the path, pg. 20 and pg. 25) the distance based on the additional user input while receiving the additional user input (the user making changes to the segments in the path corresponds to additional user input; the measurements of the distance of the path is updated as the user makes changes to one of it's segments, pg. 20 and pg. 25). Regarding claims 19 and 38, Autodesk teaches displaying a direction of the path of constant direction (pg. 18, pgs. 20-21; direction displayed by the top figure on pg. 18 displays the direction of the path of constant direction).

(10) Response to Argument

1. Regarding claims 1, 3-8, 20 and 22-27, Appellant argues that ChooseClimate does not teach "dynamically display a great circle path and calculate the great circle distance between the two selected locations" (see pg. 10 of appeal brief).

The examiner interprets that Nicholson teaches to receive a user-input specifying an initial location on the two-dimensional representation (Honolulu is selected as the start point by the user, pg. 3; Honolulu, pg. 9); receiving additional user input specifying a plurality of intermediate locations (the user selects San Francisco, Charleston, Dublin, Port of Spain as intermediate locations as shown on pgs. 10-13) and terminating with a final location (Honolulu is selected again as the final location, pg. 13); and while receiving the additional user input, displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location (pg. 1, pg. 13; the arcs linking different cities are the great circle paths representing the shortest distance between those cities). Nicholson further teaches

receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (the user selects a position on the map by position the mouse at the desired location and then clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pg. 3-4 and 9-12); and receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location (once the user has selected the first position, the user drags the mouse to another position that he may want to select and clicks the mouse to select that position, pg. 3-4 and 9-12; it should be noted that dragging the mouse from the first position, if a user clicks on some point and then continues to drag the mouse further and finally selects the final position by clicking at the position, then the point between the first position and the final position where the user clicked is considered as the intermediate position).

The examiner further interprets that Nicholson, in view of ChooseClimate (pgs. 1-3), teaches to dynamically display a great circle path and calculate the great circle distance between two selected locations (it should be noted that as suggested by the appellant on page 9 of this appeal brief, user can click on a position to select the position; therefore, it is reasonable to interpret from language of claim 1 that the user inputs the initial location, the intermediate locations and the final locations by performing some kind of action such as clicking the mouse; in the same light, the examiner

interprets that when a user selects a second cursor location on the map, ChooseClimate draws a dynamic great circle path and calculates the great circle distance between the two selected cursor positions; it should also be noted that when the teaching of Nicholson is combined with the teaching of ChooseClimate, there is no further need to click on the "View Journey" button on Nicholson's interactive maps). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically displaying the great circle path and calculating it's distance could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

2. Regarding claims 1, 3-8, 20 and 22-27, Appellant further argues that Nicholson, ChooseClimate and Microsoft Draw do not teach "... dynamically displaying a path that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location" (see pg. 10 of appeal brief). Appellant further argues that "... Microsoft Draw merely shows that a user can draw a line, where the position of the line is controlled by the user's dragging of a cursor, and there is no dynamic calculation and display of a great circle path" (see pg. 11 of appeal brief).

The examiner interprets that in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The examiner further interprets that Nicholson teaches to receive a user-input specifying an initial location on the two-dimensional representation (Honolulu is selected as the start point by the user, pg. 3; Honolulu, pg. 9); receiving additional user input specifying a plurality of intermediate locations (the user selects San Francisco, Charleston, Dublin, Port of Spain as intermediate locations as shown on pgs. 10-13) and terminating with a final location (Honolulu is selected again as the final location, pg. 13); and while receiving the additional user input, displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location (pg. 1, pg. 13; the arcs linking different cities are the great circle paths representing the shortest distance between those cities). Nicholson further teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (the user selects a position on the map by position the mouse at the desired location and then clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pg. 3-4 and 9-12); and receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location (once the user has selected the first position, the user drags the mouse to another position that he may want to select and clicks the

mouse to select that position, pg. 3-4 and 9-12; it should be noted that dragging the mouse from the first position, if a user clicks on some point and then continues to drag the mouse further and finally selects the final position by clicking at the position, then the point between the first position and the final position where the user clicked is considered as the intermediate position).

The examiner further interprets that Nicholson, in view of ChooseClimate (pgs. 1-3), teaches to dynamically display a great circle path and calculate the great circle distance between two selected locations (it should be noted that as suggested by the appellant on page 9 of this appeal brief, user can click on a position to select the position; therefore, it is reasonable to interpret from language of claim 1 that the user inputs the initial location, the intermediate locations and the final locations by performing some kind of action such as clicking the mouse; in the same light, the examiner interprets that when a user selects a second cursor location on the map, ChooseClimate draws a dynamic great circle path and calculates the great circle distance between the two selected cursor positions; it should also be noted that when the teaching of Nicholson is combined with the teaching of ChooseClimate, there is no further need to click on the "View Journey" button on Nicholson's interactive maps). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically displaying the great circle path and calculating it's distance could eliminate the need to click on the "View Journey" button on Nicholson's interactive

maps, and thus giving a faster interactive display by reducing the required processing time.

Although the combination of Nicholson and ChooseClimate teach the claimed limitations as stated above, they do not explicitly teach to dynamically displaying a path that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location. However, Microsoft Draw teaches to select a line tool and position the cursor at the first location, holding and dragging the mouse from the start position until the mouse button is released (pg. 21; the location where the mouse button is released is considered the final position; the length of the line keeps on increasing as the user moves from the start position to the final position; it should be noted that this teaching of Microsoft Draw when combined with the teachings of Nicholson and ChooseClimate will result in a great circle path that continually increases in length as the cursor is dragged from the first position to the final position). Therefore, it would have been obvious to one of ordinary skill in art at the time of present invention to display the path of the line that is being drawn by the user as taught by Microsoft Draw and apply this functionality into the method of Nicholson and ChooseClimate to dynamically display the great circle path because displaying the path as being drawn helps the user to know if he/she is dragging the mouse in the desired direction.

3. Regarding claims 9-14 and 28-33, Appellant further argues that Autodesk Onsite, Nicholson, ChooseClimate and Microsoft Draw do not teach "... dynamically displaying a boundary path representing a great circle path that continually increases in length as

the cursor is dragged from the first cursor position to a position over the final location" (see pg. 12 of appeal brief).

Autodesk (chapter: Marking Up and Measuring Your Maps, pgs 1-25) teaches while receiving the user input, dynamically displaying a boundary path between adjacent locations (as the user moves the cursor after selecting the first point, the first segment and it's distance is displayed by Autodesk Onsite, pg. 18), where each boundary path (segments) represents a great circle path (Great Circle Arc, pg. 18, figure on pg. 22) between the adjacent locations (figure on pg. 22) and where the boundary paths together enclose an area (figure on pg. 22 shows an area enclosed by 5 segments comprising 5 different vertices).

Autodesk, in view of Nicholson, further teaches dynamically displaying a boundary path between adjacent locations while receiving the user input comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a second cursor position (once the user has selected the first position, the user drags the mouse to another position that he may want to select and clicks the mouse to select that position, pgs. 3-4 and 9-12). Nicholson teaches exactly the same (pgs. 3-4 and 9-12; it should be noted that dragging the mouse from the first position, if a user clicks on some point and then continues to drag the mouse further and finally selects the final position by clicking at the position, then the point between the first position and the final position where the user clicked is considered as the intermediate position).

The examiner further interprets that Autodesk and Nicholson, in view of ChooseClimate (pgs. 1-3), teaches to dynamically display a great circle path and calculate the great circle distance between two selected locations (it should be noted that as suggested by the appellant on page 9 of this appeal brief, user can click on a position to select the position; therefore, it is reasonable to interpret from language of claim 1 that the user inputs the initial location, the intermediate locations and the final locations by performing some kind of action such as clicking the mouse; in the same light, the examiner interprets that when a user selects a second cursor location on the map, ChooseClimate draws a dynamic great circle path and calculates the great circle distance between the two selected cursor positions). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically displaying the great circle path and calculating it's distance could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

Although the combination of Nicholson and ChooseClimate teach the claimed limitations as stated above, they do not explicitly teach to dynamically displaying a path that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location. However, Microsoft Draw teaches to select a line tool and position the cursor at the first location, holding and dragging the mouse from the start position until the mouse button is released (pg. 21; the location where the

mouse button is released is considered the final position; the length of the line keeps on increasing as the user moves from the start position to the final position; it should be noted that this teaching of Microsoft Draw when combined with the teachings of Nicholson and ChooseClimate will result in a great circle path that continually increases in length as the cursor is dragged from the first position to the final position). Therefore, it would have been obvious to one of ordinary skill in art at the time of present invention to display the path of the line that is being drawn by the user as taught by Microsoft Draw and apply this functionality into the method of Nicholson and ChooseClimate to dynamically display the great circle path because displaying the path as being drawn helps the user to know if he/she is dragging the mouse in the desired direction.

4. Regarding claims 15, 17-19, 34 and 36-38, Appellant argues that Autodesk and MapProjections do not teach "... dynamically displaying a path of constant direction". Appellant further argues that "MapProjections refer to a Mercator Projection map, which is a cylindrical map projection" (see pg. 13-14 of appeal brief).

5. However, the examiner interprets that Autodesk (chapter: Marking Up and Measuring Your Maps, pgs 1-25) teaches dynamically displaying a path extending from the initial location toward each of the plurality of intermediate locations and ultimately terminating at the final location (pg. 16, 18, 20, 24-25; figure on pg. 20 shows the segments of the path as they are described by the user; this segments of the path are described in real-time as the user drags the mouse; figure on pg. 20 shows the segments of the path from initial point to the end point, distances of which are measured in paper measurements, as straight lines).

Although Autodesk teaches the claimed limitations as stated above, and teaches to display the path on the map as straight lines, Autodesk does not explicitly teach that the path of constant direction could be displayed as straight lines. However, MapProjections teach that any straight line on the map is line of constant direction (pg. 3; it should be noted that the language of claim 15 and 34 suggests that two-dimensional representation of three-dimensional geographic data could be represented as a two-dimensional map; therefore, it is reasonable to interpret that Mercator Projection map, which is also a two-dimensional representation of a cylindrical map as shown in the figure of pg. 3, is used by MapProjections to show any straight line on the map is a line of constant direction). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the line of constant direction as a straight line on the map as taught by MapProjections and apply it into the tool of Autodesk because representing straight lines on the map as the line of constant direction is useful for navigation (pg. 3).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jwalant Amin/

Examiner, Art Unit 2628

June 19, 2008

Conferees:

/Kee M Tung/

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